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Sounds And Words

A Critical Celebration of Milton Babbitt at 60

The Structure of Musical Meaning

A View From Banaras

आम्नाय-ग्रन्थालय,
भरतनिधि, करौंदी
वाराणसी-5

य-ग्रन्थालय
करौंदी, वाराणसी-५

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SOUNDS AND WORDS

आम्नाय-ग्रन्थालय,
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A CRITICAL CELEBRATION OF MILTON BABBITT AT 60

PERSPECTIVES OF NEW MUSIC

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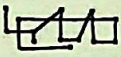
आम्नाय-ग्रंथालय
भरतनिधि, करांदें
वाराणसी-5

THE STRUCTURE OF MUSICAL MEANING:

A VIEW FROM BANARAS

(a metamodal model for Milton)

HAROLD S. POWERS



It is a long way from the Danube in Central Europe to the Ganges in the Indian subcontinent, and a long way from the music which has most occupied Milton Babbitt compositionally and theoretically to the kinds of music that most interest me. But the way Milton Babbitt has been dealing with the theory of twelve-tone music since before I came to Princeton as a graduate student in 1950 until today and tomorrow has the effect, as he himself put it in a recent article which will be quoted more than once here,

> of directing concern and study to previously only slightly examined issues fundamental to all musical systems: octave equivalence, the empirical characterization of the separable musical dimensions, the status of such concepts as 'register', and on and on. (Babbitt 1972, p. 173)[1]

For many students, including myself, Milton Babbitt was also their first introduction to Schenker. Here too the effect of his teaching was extended beyond the range of the model. As a way of conceptualizing felt coherences in familiar tonal pieces Schenker was an instant revelation to me as to many others. But beyond that, Babbitt always stressed that Schenker wrought more than he

[1] References will be found at the end of this article.

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knew, that Schenker's fundamental and original contribution was not the *Ursatz* but the *Schichten*, the concept of linked structural levels. In short, Schenker developed not only a theory of coherence in tonal music but also a theoretical and analytical tool of potentially very broad utility. Indeed Schenker himself, with his notions of the chord of nature and of the once and for all evolved and inevitable supremacy of 18th/19th-century European music (especially German), would surely have fiercely resisted most of the uses to which his procedures have been adapted. In my dissertation, for instance, I used a Schenkerian approach to describe the structure of individual phrases and motives in South Indian classical music. A given phrase was characterized in terms of the relationship of three levels: 1) a foreground 'sound-level' with all ornamental configurations indicated in a fully written-out staff notation; 2) an 'overt-level' with the *svaras*—the scale-degrees as they would be sung with their Indian letter-names—written with staff notes showing the theoretical pitch-locations only, the elaborate ornamental configurations being marked by a system of abstract symbols; 3) a described 'analytical level' comprising a background series of one to at the most three or four stable 'pitch-levels' per phrase, elaborated by structural neighbor-tones and/or passing-tones (Powers 1959, chapter VIII, summarized on pp. 171–72). In the concluding chapter I proposed a second only slightly less Schenkerian three-level scheme, in which individual motives and phrases would be collocated together into 'pitch-areas', and 'pitch-areas' in turn would be conjoined to make up the raga ('melody-type') as a whole (Powers 1959, p. 197).[2]

In my dissertation I also described the notation just mentioned for the 'sound level' and 'overt level' of a musical phrase as analogous to a 'phonetic' versus a 'phonemic' transcription (Powers 1959, pp. 146–47). The close analogy between techniques for phrase-structure analysis in music and in language has been obvious to all who have looked into both. Milton Babbitt has often referred to Schenker's methodological priority in devising a viable transformation theory (in print, see Babbitt 1972, p. 177). He has also, however, wisely cautioned that 'the apparent parallelism

[2] This latter proposition is demonstrated in a forthcoming monograph *The structure of musical discourse: a view from Madras.*

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between the transformations of Schenkerian analysis and synthesis and those of transformational, generative grammars' can be a two-edged sword, 'profoundly enlightening or profoundly misleading'.

> The apparent parallels between the internalization of rules in music and language, between competence and performance in the two, in the creative function of the grammars of both, seem as suggestive as the lexical classifications in the two fields suggest fundamental dissimilarities.
> (Babbitt 1972, pp. 172–73)

This passage as a whole seems to evoke the familiar thought that though music has grammar and syntax, it has no meaning, at least not in the sense that language has meaning—or if it does, its kind of meaning overlaps with language meaning in emotive/expressive aspects but not in cognitive/ostensive aspects. However, Babbitt's actual term—'lexical classifications'—says nothing about meaning; it says only that music theory, like language theory, can use the notion of a lexicon, and that the items in such a lexicon are to be classified. One has every reason to suppose that a classified musical lexicon in Babbitt's terms could not non-trivially incorporate any notion of cognitive/ostensive meaning into its structure, nor could it develop a semantic structure of a complexity commensurate with the syntactic complexity of many known musical languages if it had to depend solely on an independent domain of emotive/expressive meaning. In short, if the 'loosely scrutinized metaphor of music as a language' (Babbitt 1972, p. 172) can ever be pursued to the point of introducing meaning into 'lexical classification' in music, the basis of that meaning can be neither referential nor affective.

If notions of both referential meaning and affective meaning are set aside, however, Babbitt's suggestion that there may be 'fundamental dissimilarities' in the 'lexical classifications in the two fields' can be examined in a much less cluttered intellectual arena. I am not sure the dissimilarities are as fundamental in some cases as they may be in others, and I mean to question the proposition from both sides. First, I think that there is a branch of linguistic theory (and one that deals with lexical classification) that is much closer than linguistics as a whole to a hypothetical no-man's land where a linguistic and a musical semantics might co-exist. Second, I hope to show from the musical side that one

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can easily move quite far into that same no-man's land from a base in Indian music. What that may or may not mean for the notion of semantic structure in other musical languages remains open here.

From the linguistic side, the branch of semantic theory that deals with the structure of 'lexical fields', along with those aspects of the componential analysis of word-meaning that are compatible with it, seems the most promising basis for a rapprochement between linguistic meaning and musical meaning. (For a brief comprehensive survey of linguistic semantics as a whole by a leading practitioner, with extensive bibliographic notes, see Ullmann 1973.) Several aspects of John Lyons's particular version of the theory of semantic structure in lexical fields (Lyons 1963, Lyons 1968, chs. 9–10) lend themselves particularly well to the metaphor of music as a language. First of all, the fact of *having meaning* is established as logically prior to the question of *what meaning* (Lyons 1963, pp. 23–28, Lyons 1968, pp. 412–16). Second, meaning in a lexical field is defined in terms of structural relationships among lexical items in the semantic field, relationships which are established operationally. Denotation is explicitly rejected as the primary criterion for meaning. Lyons proposes instead that '*application* in *context*', though essential in semantics as a whole, should be posterior to the establishment of 'meaning' itself, which is to be done in purely relational terms. The argument was first presented in Lyons 1963 (pp. 51–59), concluding as follows:

> I consider that the theory of meaning will be more solidly based if the meaning of a given linguistic unit is defined to be the set of (paradigmatic) relations that the unit in question contracts with other units of the language (in the context or contexts in which it occurs), without any attempt being made to set up 'contents' for these units.
> (Lyons 1963, p. 59)

In the later version 'lexical system' or 'semantic system' replace 'lexical field', and 'sense' replaces 'meaning' (see Lyons 1968, pp. 424–29), and both are defined as follows:

> ... the vocabulary of a language will contain a number of *lexical systems* the semantic structure of which can be described in terms of paradigmatic and syntagmatic sense-relations ...

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> ... the *sense* of a lexical item may be defined to be not only dependent upon, but identical with, the set of relations which hold between the item in question and other items in the same lexical system.
> (Lyons 1968, p. 443)

The advantages for the music-language metaphor of a semantic theory in which having meaning is related to structural relationships among the items in a field or system, without reference to reference, are obvious.

The particular structural relationships useful for establishing meaning in a semantic system, so far as they were worked out for the study of Plato (Lyons 1963) and somewhat modified in the book of linguistic theory (Lyons 1968), are as follows (after Lyons 1968, pp. 446–70, partly rearranged):

1. Incompatibility (negation): the presence of one item implicitly denies all other possible items of the class; e.g., to mention *tulip* is to deny *rose*.
2. Loose synonymy (equivalence in a given context): one item is normally interchangeable with another in at least some circumstances. [E.g., to say 'the explanation is adequate' can often be the same as to say 'the explanation is sufficient'.]
3. Hyponymy (inclusion): two items are related as member and class; e.g., *tulip* and *rose* are 'co-hyponyms' of *flower*, or *flower* is 'superordinate' with respect to its 'hyponyms' *tulip* and *rose*.
   [Though Lyons does not specifically do so, I want to extend 'hyponymy' to cover the relationship of part and whole also. E.g., *body* (as well as *limb*) should be superordinate with respect to its hyponyms *arm* and *leg*, while *arm* and *leg* should be co-hyponyms of *body* (as well as *limb*).]
4. Oppositeness:
   a) complementarity, in which one of a pair of items implies the denial of the other, e.g., *male* and *female;* 'incompatibility' in a set of only two items (called 'non-gradable antonymy' in Lyons 1963);
   b) antonymy, in which a pair of items are related by being in contrasted positions on a continuum, such as *high:low, slow: fast,* or *good:bad* (called 'gradable antonymy' in Lyons 1963). Lyons, citing Sapir, points out that items which enter into this relationship imply the gradable continuum even when only one of the items appears in some particular context (Lyons 1968, pp. 465–67);

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c) converseness, in which a relationship is inherent in a pair of items, and the choice of one or the other is determined by the rest of the semantic or syntactic form of the utterance. E.g., 'John is Mary's *husband*' is the converse of 'Mary is John's *wife*' [or 'John *bought* Mary's house' is the converse of 'Mary *sold* John her house'].

Lyons claims that 'hyponymy and incompatibility are the most fundamental paradigmatic relations of sense in terms of which the vocabulary is structured' (Lyons 1968, p. 453). Hyponymy is like unilateral implication: *tulip* always implies *flower*; *flower* includes but does not generally imply *tulip*. Incompatibility entails contradiction, in that if one item of a set is put in place of another, the meaning of the whole utterance is different: 'There is a tulip in the vase' has a meaning different from 'there is a rose in the vase'. I shall not dwell further on this linguistic model, trusting that any suggestive analogy with it in what follows will be scrutinized under the presumption that it is misleading until proved enlightening.

From the Indian music side the relationship system that is tantamount to a semantic structure is the pattern of ways in which ragas resemble and differ from one another. There are two canonical Indian musics, each with its own system of ragas. Relationships between the two systems go no deeper than the notion of borrowing ragas from one system into the other, transforming them in the process, though the systems are structurally similar and genetically related (returning to the linguistic analogy, they are like English and French).

All references here are to the North Indian system, which is chosen for two reasons. First, aspects of pitch and contour can much more adequately be represented to unacculturated ears by staff notation in North Indian (Hindustani) ragas than in South Indian (Carnatic) ragas. (The system tonic—*sa*—is denoted by c′ in the examples, and by the numeral 1 in the text, the other six scale-degrees following accordingly, with ♭, ♯, and ♮ having their usual interpretations.) Second, North Indian raga theory is much more explicit than South Indian raga theory. This is not necessarily due to anything more than the fact that melodic improvisation plays a somewhat more prominent role in North Indian music. In South India one learns how to improvise in a raga

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informally, and not only by listening to senior artists improvise but also by learning a large number of fixed compositions in the raga; hence in South India neither musicians nor music teachers verbalize quite as much about similarities and differences between ragas as do their counterparts in the North. One might put it that in South India, ragas are learned, whereas in North India, they are taught.

Raga is often, and rightly, translated 'melody-type'. A raga is not a 'scale'; it is always more specific than a mere collection of pitch-classes and their aggregate intervals, both as to the ordering of scale-degrees and as to relative emphasis. Any number of ragas can share a single scale-type. A raga is less specific than a composed tune, however, since there can be any number of tunes in a single raga.

If a raga as a whole is a melodic type, then any particular manifestation of that type, whether precomposed or improvised, is a 'token' of the 'type'. Any 'token' of a given raga—call it a tune—can be heard as a series of connected motives and phrases, many (not necessarily all) of which will individually more or less strongly resemble many of the individual motives and phrases heard in any other tune in the same raga (not necessarily coming in the same order). All mutually similar motives or phrases in different 'tokens' of a melodic type—a single raga—may in turn be considered 'tokens' of a 'motivic type' or 'phrase type' proper to that raga.

A motivic type in a raga occupies a relatively narrow segment of the total range of the collection of pitches available to the raga as a whole (though in performance a motive can be developed out from and back into its normal compass just as it can be extended with prefix, infix, and suffix elaborations entirely within its normal compass). In Indian music the relation 'partial compass:total compass' is partly co-extensive with the relation 'motivic type:melodic type'. The configurational and the registral aspects of a motivic type are often subsumed together under the single term *anga*, whose basic meaning is 'limb' of the body; this is extended to any 'part' of the 'whole', such as a member, a component, an element, a subdivision, and so on. As a musical term *anga* is compounded with several attributives, of which the most important are *pūrva* and *uttara; pūrva* means 'lower' or 'prior' and *uttara* means 'higher' or 'responding'. *Pūrvâṅga* is the

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lower part of the central register (including the system tonic), and may also collectively designate the motivic types of the raga in that register, which for most ragas are the ones that should be expounded first. *Pūrvânga* contrasts with *uttarânga*, which designates the higher part of the central register (including the upper octave of the system tonic), and may also designate motivic types used to establish the upper tonic. Another important compound of *anga* is with *rāga;* a *rāgânga* is that highly characteristic thematic element which most clearly identifies a raga; sometimes (but not always) a group of related ragas can be said to have a common *rāgânga*. Finally, *anga* can be compounded with the name of any raga—such as *kalyān* or *kānaḍā*—as in *kalyānânga* or *kānaḍânga*. There it denotes that element, part, or component of the raga which makes the raga recognizable and identifiable.

The particular utility of the Indian raga for general music theory is two-fold. First, it fills the middleground between scale and tune with many, many dozens of recognizable melody-types and their constituent phrase-types and motive-types. These represent several levels of musical structure between a background close to the abstract system and the foreground of an actual musical event or item, levels which are not analytical constructs but rather are easily and readily manipulated by any competent performer. They are reified and (at the raga-level) individually named, they are talked about by performers and connoisseurs, and they are used in teaching.

Second, and consequent upon the foregoing, the raga affords an easy operational test for both grammaticality and meaningfulness on musical levels well below that of conformity with style or genre, yet well above that of merely finding out blunders—though the test handles these extremes also. Given that the 'context' (cf. Lyons 1963, p. 83; Lyons 1968, p. 413) is that of the 'performance' of Hindustani classical music, a person with the necessary 'competence' in that musical language can say of any musical phrase that it either is or is not a 'token' of a phrase 'type' included in some particular raga. This is a form of the test of acceptability familiar to all who have worked with informants, ethnomusicologists learning to perform in an unfamiliar musical language in the field, as well as working linguists.[3] In the case of

[3] See, for instance, Lyons 1963, pp. 18–23; Lyons 1968, pp. 137–43.

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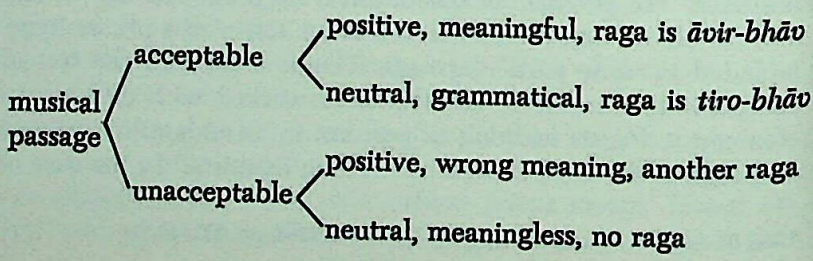
the Indian raga, as elsewhere, the competent evaluation of acceptability can be carried a bit further than 'yes' or 'no'. A passage of music deemed acceptable for a given raga may be so either positively or neutrally. It may significantly reinforce the identification of the raga in question, and in that case it could identify it in any context, including the context of being the beginning of an item. Its 'sense' or significance—its meaning—is that of supporting, reconfirming, or announcing the raga. A passage may also be merely grammatically acceptable, however, neither reinforcing nor contradicting the raga; such passages are likely to be usable in several ragas but characteristic of none. In North Indian terminology passages in the positive versus the neutral categories of acceptability make a raga being rendered either 'essence-manifest' or 'essence-concealed'—*āvir-bhāv* or *tiro-bhāv*—respectively.

If a phrase is unacceptable, it is also either positively or neutrally so. It may have a 'sense', but one that is wrong in the established context, in that it is positively identifiable and characteristic of some other raga, so that it makes some other raga 'essence-manifest' (*āvir-bhāv*). Under normal performance circumstances a 'wrong' raga manifested accidentally would most likely be one partially resembling the raga being performed, and the closer the two ragas, the more likely that an inattentive performer might slip from one into the other through a common phrase. Finally, a passage may conceivably be 'non'sense, not acceptable as the raga being rendered, but not meaning any other raga either. In the most obvious case, a passage with merely a 'wrong' note or notes in a prominent place—whether by accident or from ignorance of the conventions of the particular raga—if it does not suggest another raga, at least destroys or gravely endangers the 'sense' of the raga being performed.

These four kinds of acceptability in the context of performance in a raga may be represented as follows:



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Teachers and textbooks of Hindustani music make extensive use of a heuristic device called *rāg-tulnā* 'raga-comparison' (the root *tul* actually denotes 'balance'). In *rāg-tulnā* a new raga is described and taught in terms of its differences from a known related raga. A standard and widely used modern textbook (RP) includes twenty-eight instances of bilateral *rāg-tulnā*, apart from many passing references to raga relationships in the descriptions of individual ragas. In each *rāg-tulnā* there are separate lists of likenesses and differences between the two ragas, with six to ten items in each list. Among these bilateral comparisons are *hamīr:kedār*, *hamīr:kāmod*, and *chāyānaṭ:kāmod*. The overlapping appearance of the ragas *hamīr* and *kāmod* indicates that the four ragas belong in a relational group. A comparison of three of the group—*kedār*, *kāmod*, and *chāyānaṭ*—may be seen in Kaufmann 1968, pp. 101–104; it is preceded by individual descriptions of each of the three (pp. 86–101), and followed by an individual description of *hamīr* (pp. 104–107), which Kaufmann seems not to have recognized as a member of the group.

The group of ragas to which *kedār*, *kāmod*, *hamīr*, and *chāyānaṭ* belong was first analyzed in detail by V. N. Bhatkhande in 1910 (HSP I, pp. 106–34); it also includes the ragas *gauḍ-sārang* and *śyām-kalyān*, which are in fact the extreme types. On the 'map of some North Indian ragas relationships', this group of six ragas is located at bottom left center (see Fig. 1). Example 4-A shows the common motivic types that make it a group; the contrasted motivic types that most clearly mark the individuality of each raga within the group appear in Ex. 4-B. Each individualizing motivic type—the *rāgânga* for its raga—has the function of establishing the principal modal degree (*vādī*) of the raga, putting it in a unique and unmistakable melodic setting.

An individual raga description is customarily presented in terms of scale-type, of the ordering and emphasis of scale-degrees, of special ways of taking particular degrees, of above- or below-average pace or tessitura, and so on. In full descriptions illustrations of characteristic motivic types may be given (in some form of letter notation), or even a short connected set of typical phrases. There are also a few texts which provide a fully written-out sample improvisatory exposition—an *ālāp*—for each of the ragas described. One such work is *sangītânjalī* (SA) by Omkarnāth Thākur, a text for the music degree course at Banaras Hindu University.

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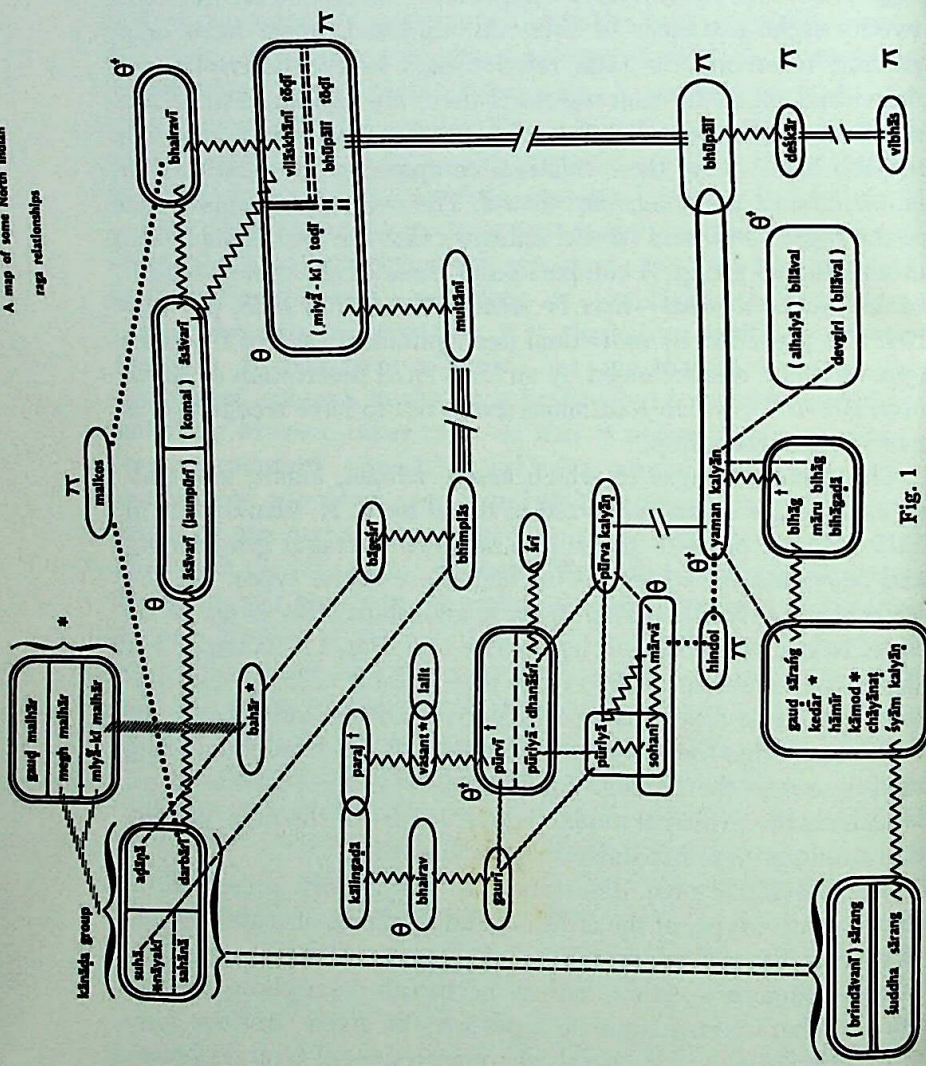

Fig. 1

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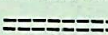
Key to the 'Map of some North Indian raga relationships'

1. weakly or strongly interconnected groups of independent ragas; interior solid lines indicate contrast in one or more variable scale-degrees; interior broken lines indicate differences in the total number of pitch-classes used

2. separate ragas with an aspect of resemblance

3. same pitch-class collection, strongly contrasted melodic type

4. contrast in some basic motivic type in ragas with some common material which might otherwise lead to confusion

5.  specific or more general motivic connections

6. a similar motive quite differently inflected

7. similar scale-degree configurations with contrast in one up to four of the variable scale-degrees

8. *, ★, † specific short motives common to the ragas so marked, sometimes supposed to be slightly differentiated by ornamental touches in one context versus another

9. a raga with a pentatonic collection

10. a raga using a particular heptatonic collection which has been designated as a tuning and classificatory scale-type (*ṭhāṭ*) and given the name of the raga; the raga (as opposed to the *ṭhāṭ*) may also use one or more accidentals in some contexts in addition to the basic heptatonic collection, so indicated by an added + on the map

11. ..... a pentatonic raga felt to be related to more than one hexatonic or heptatonic raga

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Omkarnāth Thākur (1897–1967) was one of the star performers of his generation, and his work has first of all the virtue of that kind of authenticity. Beyond that, the raga descriptions in SA are very detailed and amply illustrated; furthermore, they are full of pointers on things to bring out and admonitions of what to look out for, couched in terms of both positive characterization of the given raga and positive avoidance of related ragas. The discussions that follow begin with excerpts from descriptions and musical illustrations taken from SA for a number of ragas, and conclude with a more rapid and synthetic survey of some more ragas carried out along the same lines. Emphasis is on the aspects of raga description that concern the external relationships of the raga being described, and the discussions are for the most part confined to comparisons in the *pūrvânga* register.

In the left center section of the 'map' (Fig. 1) appear the names of a number of variously related ragas. Some passages from the raga-descriptions of *pūrva-kalyāṇ* and *pūrvī* from SA VI are quoted just below, passages dealing with individualizing, overlapping, or incompatible motivic types. In addition to these two quotations there are shorter excerpts from descriptions in SA IV of three more ragas—*pūriyā-dhanāśrī*, *pūriyā*, and *mārvā*—that are mentioned in one or both of the first quotations. Examples 1 and 2 contain the relevant musical illustrations from SA referring to all the ragas mentioned in the five quotations; Ex. 1 has short samples of development of comparable registral elements belonging to the *pūrvānga* of six of the ragas mentioned; Ex. 2 shows motivic types.

[from SA VI (2), pp. 91–92: *pūrva-kalyān*]

After taking ♭2-3, if ♭2-3-♭2-1 is taken [see Ex. 2-B1], then one can avoid *pūriyā* or *pūriyā-dhanāśrī* [cf. Exx. 2-B2, B4]. Just after taking ♭2 one should come right away to 1. The raga-ness will also come into jeopardy from taking ♭2 too often, since *mārvā* will lift up its head [cf. Ex. 2-B3]. This way, in order to avoid *pūriyā*, *mārvā*, and *pūriyā-dhanāśrī* one must always be on one's guard regarding these configurations [as shown in Exx. 2-B2, 3, 4]: ♭2-3—♭2-1 (*pūriyā*); ♭2—3-♯4-3-♭2— (*mārva*); and ♭2-3—♯4-♭2-3—♯4-3 — ♯4-♭2-3— (*pūriyā-dhanāśrī*). Apart from this one ought to leave the *pūrvânga* as promptly as feasible, show ♮6 in the *uttarânga*, and come to rest on 5 [see Ex. 1-A beginning]. The *kalyān anga* will thereby be brought out [cf. Ex. 1-B beginning], and the form of *pūrva-kalyān* will be audible.

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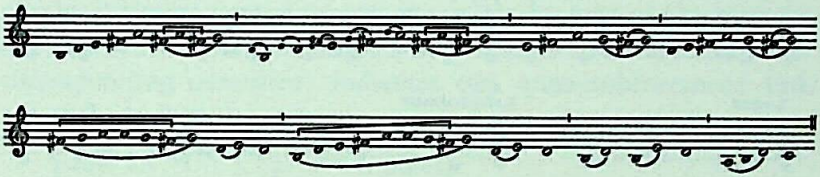
A. *pūrva-kalyān* [SA VI (2), 92]

B. *yaman-kalyān* [SA II, 157]

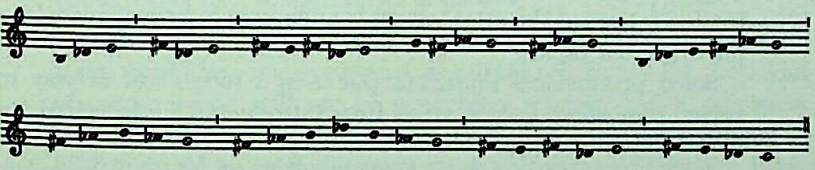


C. *pūriyā* [SA IV (2), 112]

D. *mārvā* [SA IV (2), 136]

E. *śrī* [SA VI (2), 69]

F. *pūriyā-dhanāśrī* [SA IV (2), 154]



Ex. 1 exposition of registrally comparable elements in six variously contrasted ragas

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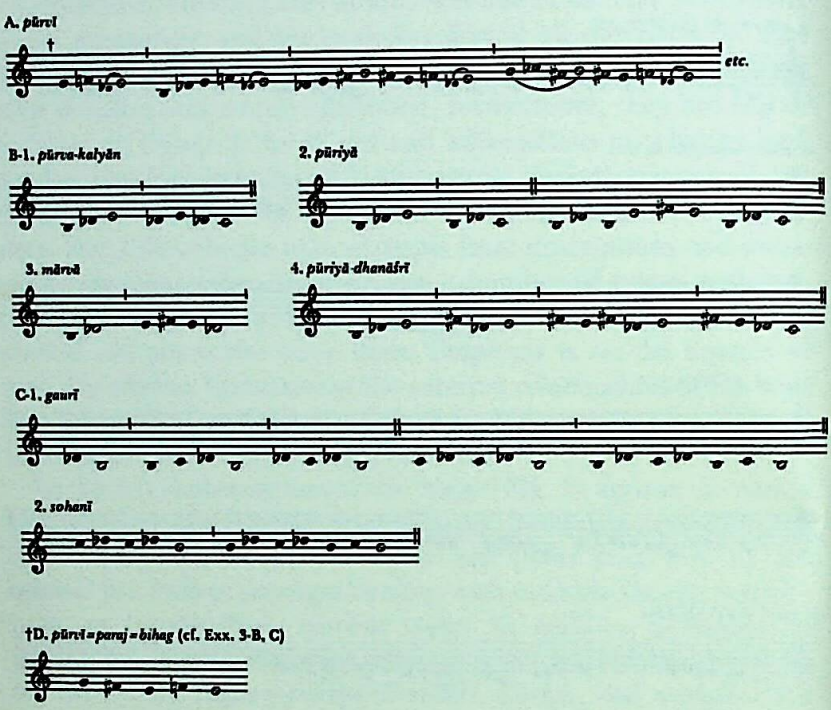

Ex. 2 contrasted motivic types in several related ragas
[after SA IV and VI; see text for locations]

The raga is manifested in such configurations as the following [as shown in Ex. 1-A]: 7̣-♭2-3-♯4-6—5, ♯4-3-♯4-6—5, ♯4-3-♭2-3-♯4-6—5, 7̣-♭2-(7)♭2-3-(♭2)3-♯4-(3)♯4-6—5, ♯4-3—♭2-3—♭2—1. Like *mārvā*, this raga also tends rather toward the *uttarânga* [higher registral-motivic area in the central octave], and with this tendency toward the *uttarânga*, it is quite easy to keep it away from other related ragas.

Some professional musicians put it in a rough sort of way by saying that *pūrva-kalyān* arises from introducing 5 into *mārvā* and de-emphasizing ♭2 [cf. Exx.1-A and 1-D].

[*Yaman*] *kalyān* is shown in the 5—then ♭2 conceals the *kalyān anga*. The ♮6 provides a distinction from *pūriyā-dhanāśrī* [which uses ♭6, cf. Ex. 1-F], while the 5 continues to protect it from the *mārvā anga* [which has no 5, cf. Ex. 1-D].

Of the four ragas mentioned in the description of *pūrva-kalyān*, two are also referred to in the excerpt below from the description

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of *pūrvī;* they are *pūriyā* and *pūriyā-dhanāśrī.* Two other ragas mentioned in the description of *pūrvī* are *paraj* and *gaurī,* the latter simply to be avoided in one danger spot, the former overlapping in one specific figure. That figure (5-♯4-3-♮4-3) is also shared by *bihāg* (bottom center of the map) which is otherwise absolutely unconnected in any way with the part of the map we are concerned with; the dagger by the raga-names (and on the corresponding examples) indicates this quasi-subterranean link across the system.

[from SA VI (2), pp. 53–54: *pūrvī*]

Pūrvī is an evening raga . . . the *anga* 7̣-♭2-3 of *pūriyā, puriyā-dhanāśrì,* and other sunset ragas is prominently used in it [cf. the beginnings of Exx. 2-B2, B4, also Ex. 2-B1]. . . . There is a special motive with ♮4 [normally *pūrvī* uses ♯4] for keeping *pūrvī* separate from *pūriyā-dhanāśrī,* which gives it distinctiveness; it goes thus [as shown in Ex. 2-A]: 3-♮4-(♭2)3, 7̣-♭2-3-♮4-(♭2)3, ♭2-3-♯4-5—♯4-3-♮4-(♭2)-3, 5-♭6-♯4-5—♯4 3-♮4-(♭2)3, and so on. This special motive must be got into the voice orally from the teacher, otherwise there is a likelihood of showing *bihāg* or *paraj* when going 5-♯4-3-♮4-3 [Ex. 2-D, and cf. Exx. 3-B,C]. . . . To avoid *pūriyā-dhanāśrī,* ♯4-3-♯4-♭2-3 [see Ex. 2-B4] must absolutely never be touched . . . Likewise one must never stop on the lower 7̣ in this manner: ♭2-7̣, 7̣-1♭2-7̣, ♭2-1-♭2-7̣, 1-♭2-1-♭2-7̣ [Ex. 2-C1]; this sort of settling to the 7̣ will bring forth *gaurī.* Likewise, no rendering of the notes should ever be made this way: 7̣-♭2-7̣-3—♯4-3—7̣-♭2-1 [Ex. 2-B2], otherwise *pūriyā* will be brought into it.

The description of *pūriyā-dhanāśrī,* a raga extremely close to *pūrvī,* includes the following relational observations:

[from SA VI (2), p. 154: *pūriyā-dhanāśrī*]

Right after singing 7̣-♭2-3 one must sing ♯4-♭2-3, otherwise there would be some semblance of *pūriyā* [cf. Exx. 2-B4, B2]. And of course 7̣-♭2-1 will not be sung after singing 7̣-♭2-3; one must sing ♯4-3-♭2-1 when coming on to 1 [Ex. 2-B4 end]. By singing 7̣-♭2-1 it would be *pūriyā,* so one must always avoid that. . . . Likewise one ought not to descend at length on to ♭2, from which a semblance of *śrī* would appear [see Ex. 1-E].

The ragas *pūriyā* and *mārvā* mentioned in the foregoing passages are themselves peculiarly well suited for *rāg-tulnā* (Kaufmann 1968, pp. 315–23, describes them individually, and *sohanī*

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as well, but very much in terms one of another). They use the same simple yet striking hexatonic collection, yet they are very strongly contrasted both in modal emphasis and in inventory of motivic and phrase types, so that—properly performed—neither can possibly be mistaken for the other.

Examples 1–C and 1–D are sections from sample unpulsed expositions—*ālāp*—of *pūriyā* and *mārvā*, after SA IV. Sections with corresponding compasses are shown, the better to exhibit the contrasts in modal emphasis and motivic type; the *pūriyā* section is fifth out of a total of eight, the *mārvā* section fourth out of a total of nine.

The different positions of the two sections in their respective sample *ālāps* illustrates yet another contrast. Both the sample *ālāps* follow the standard procedure for this genre of improvisation, which is to raise the tessitura section by section. The fact that the *pūriyā* section comes over halfway through its sample *ālāp* while the *mārvā* section in the same register has not yet reached the halfway point results from a contrast in tessitura emphasis in the two ragas. They are both unlimited as to permitted compass up or down, but *pūriyā* is supposed to be kept at a considerably lower average tessitura than *mārvā*.

Short excerpts from the individual descriptions of *pūriyā* and *mārvā* in SA touching on external relations follow below:

[from SA IV (2), p. 110: *pūriyā*]

> It would be well here also to give warning that in this raga nothing like ♯4-♭2-3 or ♯4-3-♯4-♭2-3 ought ever to be done, otherwise it will show *pūriyā-dhanāśrī* [Ex. 2-B4]. Likewise nothing like 1-♭2-1-♭2-7̣, 7̣-♭2-1-♭2-7̣-1-7̣ ought ever to be done. The image of *gaurī* would be shown by singing these notes in the lower register [Ex. 2-C1], and from singing them in the higher register the image of *sohanī* would shine forth [Ex. 2-C2].

[from SA IV (2), p. 134: *mārvā*]

> Roughly, the same notes are taken in *mārvā* as in *pūriyā*, that is, ♭2, #4, 5 omitted, and the others natural [♮6 and ♮7, plus of course the system tonic 1]... When the Gestalt of the raga is arisen, from standing on ♭2 and 6, the image of *pūriyā* is concealed... Keep in mind that in this raga one must never forget-fully dwell on 3 and 7. If one were to dwell more than minimally on 3 and 7, then *mārvā* would be concealed and the image of *pūriyā* would forthwith begin to appear [cf. Exx. 1-C, 1-D].

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From the recurrent admonitions and instances in the foregoing set of individual descriptions one sees that both significant overlappings and significant incompatibilities of motive and phrase-type in the external relations of these ragas one to another lead to a modicum of circularity. Returning to the point in the circle from which we began—the raga *pūrva-kalyān*—let us quickly explore in another direction on the map of raga-relationships. The aspect of (*yaman*)-*kalyān* which belongs also to *pūrva-kalyān* has been mentioned, and can be seen in the registrally comparable samples in Exx. 1-A and 1-B; it consists essentially in the approach to 5 from a somewhat prolonged ♮6 above, especially when developed within the common unordered subcollection 3 ♯4 5 6. The most obvious differences devolve from the single contrasting scale-degree variety, ♭2 in *pūrva-kalyān* versus ♮2 in *yaman-kalyān*, indicated on the map by a single, solid line with a break in it connecting the two raga names.

Common and contrasting links between *yaman-kalyān* and two other ragas are shown in Exx. 3-A and 3-B; the differences between the ragas in each pair as a whole are considered much greater than the similarities. In Ex. 3-A, first and third sections, one sees that in the subregister between low ḍ and 3 the two ragas share an emphasis on ♮ḍ and ♮3, and that emphasis on the melodic couple ♮2-♮3 is also common; they contrast in that *bhūpāli* always omits degrees 4 and 7, and *yaman* omits 1 and 5 in phrases that ascend past 1 and 5 (and sometimes in descent also).

All that *yaman-kalyān* and *bihāg* [Ex. 3-B] have in common is their collections (a phrase type of *yaman* not shown touches ♮4), and the main degrees of modal emphasis, ♮3 and ♮7. They are strongly contrasted in the motivic types fleshing out the common modal degrees: ṭ-2-3 in *yaman* versus ṭ-1-3 in *bihāg*, or the rapid passing over of 2 and 6 in descent in *bihāg* versus the lingering on them in descending passages in *yaman*.

The contrast in *bihāg* and *gauḍ sārang* (Ex. 3-B) is even greater; they use the same pitch-class collection, however, and have the same predominant modal degrees. Attention is frequently directed to the need to distinguish clearly between the ways of establishing that modal degree: 3-4-3 in *bihāg* versus 3-2-4-3 in *gauḍ-sārang*. Each of these motivic types is the characteristic label —the *rāgânga*—for its raga.

The mutual overlappings and incompatibilities among the

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Ex. 3 four ragas in three pairs
° cf. Exx. 1-A,D.

group of ragas to which *gauḍ sārang* belongs have been touched on earlier, as they are shown in Ex. 4.

Example 5 epitomizes similarities and differences between the last member of the group shown in Ex. 4 and a particular member of a quite different group of ragas, with which it might be confused. The differences are strongest in descent, as shown in the middle sections of Exx. 5-A, B. The descending phrase types in the *pūrvânga* of each raga lead into a motivic type which is a basic characteristic for all ragas in the group to which it belongs: 3-4-2-1 for *śyām kalyān* (shared with all the ragas of Ex. 4 except *kedār*), versus 4-2—with a slow downward slide (*mīṇḍ*)—which is a mark of all *sārang* ragas, including *śuddha sārang*. The similar ascents in this register, 7-1-2-♯4-5, are supposed to be contrasted as much as possible by bringing in and emphasizing the charac-

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Ex. 4 a group of related ragas

Ex. 5 contrasted and related ragas

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teristic *sārang* ♮4-2 slide in *śuddha sārang*, and by making something of the ♯4 in *śyām kalyān* from time to time (as shown in the last phrase type of Ex. 5-A).

Example 5-C epitomizes the principal raga of the *sārang* group; the descending ♮7 and ♮6 of *śuddha sārang* are replaced by ♭7 alone, there is no ascending ♯4 contrasting with a descending ♮4, and a ♭7-5 slide parallels the 4-2 slide. The two slides are the mark of *sārang*, and even *śuddha sārang* is said to use the ♭7-5 slide in some traditions (see Kaufmann 1968, pp. 107–109), and also pp. 109–111 for comparison of *śuddha sārang* with *śyām kalyān*).

A curious relationship obtains between the *sārang* ragas and the ragas of the *kānaḍā* group, a few of which are epitomized in Ex. 6. All *kānaḍā* varieties have in common a certain characteristic descent; this *kānaḍā anga* comprises two motivic types, a direct fall from ♭7 down to 5, and a shaken ♭3 followed by a direct fall from 4 down to 2 followed by 1. These are marked, together or separately, by braces above the staff in Ex. 6. The ♭7-5 and 4-2 couples are felt to represent the *sārang anga*, which is regarded as immanent yet always shadowy for the *kānaḍā* group as a whole. There are thus three melodic type levels in any *kānaḍā* variety. In the background is the *sārang anga*, ♭7-5 plus 4-2; the middleground is represented by the slightly more complex types of the *kānaḍā* descent, ♭7-5, shaken ♭3, and ♭3-4-2-1. The individual ragas are in the foreground; their distinctive motive and phrase types are indicated in Ex. 6 by brackets under the staff marking the characteristic *angas* proper to each. On the whole these are ascending patterns, as might be expected, but in the area of ♭7-5 there are some clear distinctions. *Nāyakī* and *suhā* are separate from the others and mutually similar in their double-fall, but slightly different in that *nāyakī* emphasizes ♭7 where *suhā* emphasizes 5. *Sahānā* uses ♮6, even touching it in passing from ♭7 to 5 in its own characteristic *anga* in some traditions. *Darbārī* and *aḍāṇā* both use ♭6 in the figure ♭6-♭7-5 (paralleling ♭3-4-2), but in most contexts *aḍāṇā* omits 6.

Darbārī and *aḍāṇā* are the two most prominent members of the group. They share a common collection and their scale-degree configurations are also very similar. They are nonetheless highly contrasted in performance, in two ways: *darbārī* is characterized by a slow and ponderous pace, and its preferred tessitura is very low; *aḍāṇā* is sprightly and lies very high, focussing on the upper

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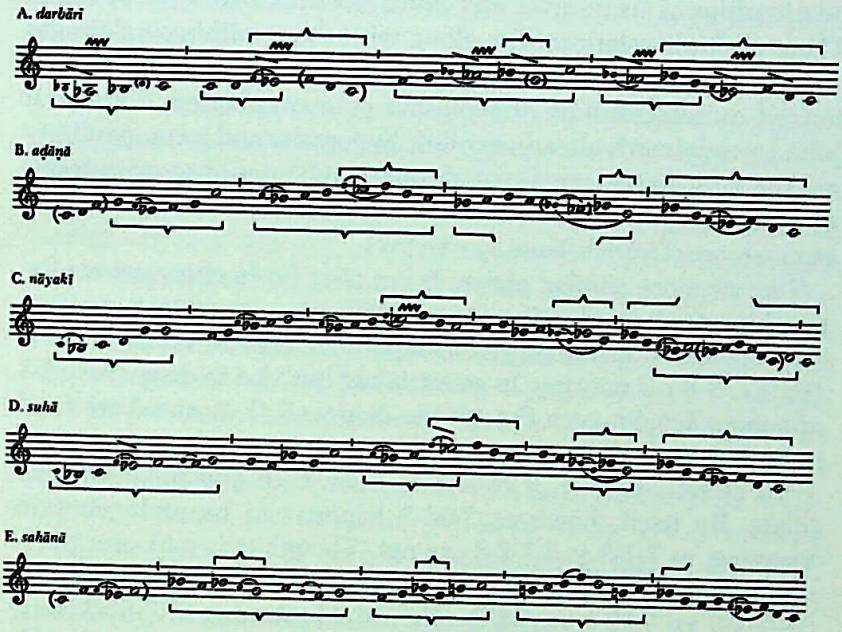

Ex. 6 the *kānaḍā* group
⌒ : the *kānaḍā* group
⌒ : component marking individual raga (*rāga/anga*)

tonic. Similar but less extreme contrasts sometimes distinguish other members of the *kānaḍā* group.[4] These areas of overlap and incompatibility, however, lead away from contrasts based largely on motive and phrase, and into distinctive features based on performance style which would have to be shown over long stretches of notation, features which sometimes can hardly be notated even schematically though they are clearly and markedly audible in performance.

In any case, there are plenty of linkages based largely on pitch-class collection and selection, and on the ordering and emphasis of scale-degrees in motive types, phrase types, and melody types, linkages enough to show that the North Indian raga system is a system of melodic types grouped in fields, and that the meaningfulness of a named raga can be said to be based on the multiple

[4] For an outline of the whole *kānaḍā* group as V. N. Bhatkhande and his followers have presented it, see Kaufmann 1968, pp. 499–531.

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relationships of its motives and phrases with those of other ragas. These multiple relationships, along with those within single ragas and among groups of ragas, may quite appropriately be characterized as relationships of inclusion or contradiction. To repeat John Lyons's words already quoted, 'hyponymy and incompatibility are the most fundamental paradigmatic relations of sense in terms of which the vocabulary is structured'. To these may be added equivalence, Lyons's 'loose synonymy'.

Two or more similar phrase types may be in contrastive relationship, used to identify one melodic type as against another; they are heard as mutually incompatible. That is, to assert 7̣-1-3 (cf. Ex. 3-B) is not only to assert *bihāg* but also to deny the 7̣-2-3 of *yaman-kalyān*, even though the degrees 7̣, 1, 2, and 3 are used in both ragas.

To assert 7̣-♭2-3 is of course to deny both *yaman-kalyān and bihāg*. By itself, however, 7̣-♭2-3 happens to be ambiguous in meaning, as 7̣-1-3 and 7̣-2-3 are not. Though it is part of a paradigm of choices bounded by modally predominant pitches 7̣ and 3—7̣-1-3 vs. 7̣-♭2-3 vs. 7̣-2-3—the actual meaning of 7̣-♭2-3 must be further determined syntagmatically, that is, in context with other motivic types: 7̣-♭2-3/7̣-♭2-1 means *pūriyā*, while 7̣-♭2-3/♯4-♭2-3 means *pūriyā-dhanāśrī* and 7̣-♭2-3/♭2-3-♭2-1 means *pūrvakalyān* (cf. Exx. 2-B1, B2, B4). By itself 7̣-♭2-3 is grammatically correct and syntactically significant for all these ragas (and others besides), but for this very reason it is not far off the mark to think of it as semantically neutral. Put slightly differently, there exists an essential distinction between what might roughly be called 'marker' and 'filler' roles for phrase types in the raga system. This distinction is closely analogous to a distinction between semantic and syntactic words in a language, but in the case of the raga system it is a purely relational distinction even on the 'semantic' level. It depends neither on extra-musical referential denotation nor on affective connotation to effect a complete difference in meaning, invoking one particular reified audible entity as opposed to some other audible entity with which the first might otherwise be confused.

As the next level of phrase structure, of course, 7̣-♭2-3/7̣-♭2-1 or 7̣-♭2-3/♯4-♭2-3 or 7̣-♭2-3/♭2-3-♭2-1 once again form a paradigmatic field; utterance of any one of these sequences is simultane-

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ously the affirmation of one melodic type and a consequent denial of other possibilities.

Two or more similar phrases included together as possible alternates in the same registral area of one melodic type may be analogously regarded as 'loosely synonymous'. Within the raga *pūriyā*, for instance, ♭7-♭2-3 (Ex. 2-B2) has more elaborate equivalent forms, such as ♭7-♭2-♭7-3—♯4-3 (Ex. 2-B2) and especially ♭7-♭2-♯4—3 (see Ex. 1-C, the last two motives); all three forms occur in syntagmatic combination with ♭7-♭2-1 in *pūriyā*. That this is a semantic equivalence, however, and not a purely syntactic one, is attested by the fact that the simple and ambiguous ♭7-♭2-3 can be replaced by ♭7-♭2-♭7-3—♯4-3 or ♭7-♭2-♯4—3 only in *pūriyā;* both of the more elaborate forms are characteristic only for that raga, and ♭7-♭2-♯4—3 is immediately definitive. The simple motive ♭7-♭2-3 can occur in *pūrva-kalyān* as well as in *pūriyā* (Exx. 2-B1, B2), for instance, but substituting ♭7-♭2-♯4—3 for ♭7-♭2-3 medially in *pūrva-kalyān,* say in such a combination as that of Ex. 2-B1, would momentarily evoke *pūriyā* and thereby materially weaken and perhaps destroy the sense of *pūrvā-kalyān.*

Two or more dissimilar phrase types or motive types conventionally accepted as belonging to a single raga may be analogously conceived as co-hyponyms of a superordinate melodic type. For instance, the two phrases ♭7-♭2-3 ♭7-♭2-1 (Ex. 2-B2) and 3-♯4-6 3-♯4—3 (Ex. 1-C, third incise before the end) each represent a different part (*anga*) of *pūriyā*. The configurations of phrase types in contrasted registers within a single raga often entail some degree of melodic parallelism built around two predominant modal degrees such as exists here elaborating ♭7 and 3. (Still closer melodic parallelism between one *anga* and another in a single raga are shown for the two ragas illustrated in Ex. 3-B.)

Furthermore, any phrase belonging to a raga may suggest the raga, but the establishment of a particular raga does not necessarily mean that all phrase types or motive types which might occur will occur. The motive ♭7-♭2-♯4—3 identifies and therefore implies *pūriyā,* but while *pūriyā* includes ♭7-♭2-♯4—3 it can also be recognized and established in other areas with other means, and therefore the converse does not hold; *pūriyā* does not necessarily imply ♭7-♭2-♯4—3, however strong the probability that ♭7-♭2-♯4—3 will occur.

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It may be observed, finally, that the basic paradigmatic relationships between phrase types and motive types, the relationships of incompatibility, of equivalence, and of co-membership, can and do function at different hierarchical levels within the raga system as a whole. Incompatibility of similar phrase types defines melodic types one against another, while equivalence of similar phrases and compatibility of dissimilar phrases most characteristically operate within melodic types. This two-level pattern of linkage can be expanded indefinitely, however, and it makes the melodic system of North Indian music a coherent and hierarchic whole, as illustrated generally in the 'map' and shown particularly in Exx. 4 and 6 and Ex. 5 which links them. Looking only within the *kānaḍā* group, as instanced in Ex. 6, at the level nearest the surface the motives ♭6̣—♭7̣-1 and ♭6̣—♭7̣-2-1 (cf. Ex. 6-A, beginning) are equivalent; both are within the same *anga* of *darbārī kānaḍā*, and one may almost always replace the other in that context. On the next level, dissimilar *darbārī kānaḍā* phrases ♭6̣—♭7̣-2-1 and 4-5-♭6—♭7-5 are not equivalent, but rather represent different co-members of the same melodic type; neither 'means' the other, but either and both 'mean' *darbārī kānaḍā* and nothing else. The melodically comparable phrases 4-5-♭6—/♭7-5-♭3—4-2 (cf. Ex. 6-A) and 4-5-$^{\flat 75}$♭7—5/♭7-5-♭3—4 (cf. Ex. 6-C), however, are mutually incompatible on the level of individual melodic type; the former means *darbārī kānaḍā*, the latter means *nāyakī kānaḍā*. On the next level, however, the element ♭7-5 occurring in the same overall context with ♭3—(4-2) carries a meaning that can be named '*kānaḍā*', so that on that level *darbārī* and *nāyakī* are thought of as co-members of a superordinate group of melodic types.

All the notated examples used here are synthetic. Examples 1 and 2, which I use to support the basic proposition, were taken from the hundreds provided by Omkarnāth Thākur for his raga descriptions; Exx. 3 through 6 were concocted by me for the supplementary discussions. In citing this kind of material I conform to a central methodological tradition of post-Bloomfieldian structural linguistics, using introspection (Thākur's or mine) in order to deduce and demonstrate generalizations about *langue* and com-

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petence, rather than statistical analyses of performance data as a source for inductive generalizations about *parole*, in the mode of sociolinguistics and its dialect geography predecessors. In musical analysis by and large, however, those particular distinctions of analytical method hardly arise; the familiar model is the analysis of Western art music, which deals with written works of musical literature, where neither introspection nor performance data are normally very relevant. It is as though modern linguistics had been developed entirely from the analysis of literature and the traditions of grammar, and had not only not derived any working methods or epistemological models from dealing with languages which are spoken but had never had any spoken languages to work with at all.

Here again, Indian classical music seems much closer to language than its Western counterpart, since 'improvisation'—which is nothing but spontaneous as opposed to precomposed musical discourse—plays the major role in its performance practice. A musical semantics based on hierarchically structured conventional motivic and melodic incompatibilities, equivalences, and inclusions of the kind I am postulating here may well turn out to be more valid for something like Indian music than for a music almost completely instanced by composed artifacts, like Western art music as we customarily treat it. Nonetheless even here Milton Babbitt offers the best last word. In writing of how a viable improvisationally based music must necessarily be organized, he provides a cogent summary of how Indian classical music actually is organized, though that was not at all his intention—and his remarks are not inappropriate to language too, in its primary form of extempore communication.

> The delegation of an unusually broad area of compositional choice to the performer, resulting in "improvisation", a term denoting a relative condition, far from necessarily securing randomness is more likely to produce a highly and conventionally constrained result, since the performer, composing with little time for circumspection and no opportunity for revision, is, first and above all, a constrained human who, as such, produces patterns of dependencies detectable as such by other humans . . . (Babbitt 1972, p. 171)

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REFERENCES

Babbitt 1972
Milton Babbitt, "Contemporary Music Composition and Music Theory as Contemporary Intellectual History," in *Perspectives in Musicology*, ed. Barry S. Brook et al., New York, 1972, pp. 151–84.

HSP I
V. N. Bhatkhande, *hindusthānī sangīta-paddhati* (Hindi translation), Volume I, Hathras, 1956 (Marathi originally publ. Bombay, 1910).

Kaufmann 1968
Walter Kaufmann, *The ragas of North India*, Bloomington, 1968.

Lyons 1963
John Lyons, *Structural semantics: an analysis of part of the vocabulary of Plato*, Oxford, 1963 (Publications of the Philological Society XX).

Lyons 1968
John Lyons, *Introduction to theoretical linguistics*, Cambridge, 1968.

Powers 1959
Harold S. Powers, *The background of the South Indian raga system*, Princeton University Ph. D. dissertation, Princeton, 1959.

RP
Hariścandra Srīvastava, *rāg-paricāy* (I–IV), Allahabad 1957–65.

SA
Omkarnāth Thākur, *sangītâñjali* (I–VI), Banaras, 1954–62 (Vol. I[1] publ. 1938).

Ullmann 1973
Stephen Ullmann, "Some recent developments in semantics," in his *Meaning and style*, Oxford, 1973, pp. 1–39.

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